

IN THE CLAIMS:

1. – 13. Cancelled.

14. (Currently Amended) A process for producing a tubular composite structure having at least one integrally reinforced section, said process comprising the steps of:

first applying a first face sheet onto an outside surface of a mandrel having a longitudinal axis;

covering an outside surface of said first face sheet with a core layer having a first core thickness at a first position relative to said longitudinal axis and a second core thickness, different than said first core thickness, at a second position relative to said longitudinal axis;

second applying a second face sheet to an outside surface of said core layer, wherein at least one of said first and second face sheets has a first sheet thickness at said first position and a second sheet thickness, different than said first sheet thickness, at said second position, and wherein said first face sheet, said core, and said second face sheet define a composite structure having an overall thickness that is the same thickness at said first position as and at said second position;

after said applying and covering steps, curing said first and second face sheets; composite structure; and

removing said mandrel.

15. (Cancelled)

16. (Previously Presented) The process of Claim 14, wherein at least one of said first and second applying steps further comprises applying a plurality of fiber reinforced material layers.

17. (Previously Presented) The process of Claim 16, wherein applying said plurality of fiber reinforced material layers comprises applying a first number of said fiber reinforced material layers in said first position and applying a second number of said reinforced fiber material layers in said second position, wherein said first and second numbers are different.

18. (Previously Presented) The process of Claim 17, wherein said first thickness of said core is greater than said second thickness of said core and said first number is less than said second number.

5 19. (Currently Amended) The process of Claim 16, wherein at least a portion of said plurality of fiber reinforced material layers are partial layers disposed adjacent to said core.

20. (Previously Presented) The process of Claim 14, wherein said covering step further comprises utilizing a core having one planar surface.

10 21. (Currently Amended) The process of Claim 14, wherein said applying steps further comprises applying at least one face sheet such that said composite structure maintains having a constant thickness along its length.

15 22. (Currently Amended) The process of Claim 14, wherein said covering step further comprises utilizing a core having an increased density at said first position wherein said first core thickness is less than said second core thickness.

20 23. (Original) The process of Claim 14, wherein said first and second applying steps comprise at least one of hand lay-up, filament winding, and fiber placement.

24. (Currently Amended) The process of Claim 23, wherein said first and second applying steps comprise applying pre-impregnated fiber reinforced materials ~~are utilized~~.

25 25. – 41. Cancelled.